

Tower

Tower Positions

These two Tower Positions exist at München:

Sector	Login	Station ID	Frequency	Area of Responsibility
North Tower	EDDM_N_TWR	MTN	118.705	Runway 26R/08L
South Tower	EDDM_S_TWR	MTS	120.505	Runway 26L/08R

With both Tower Positions staffed, the controlzone is split abeam the (physical) tower parallel to the runways. North Tower is responsible for the northern part of the CTR, South Tower for the southern part.

If only one tower is staffed, he also takes over the tasks of the other tower. If no Ground is staffed, Tower also takes over the neighbouring Ground AoR (North Tower the North Ground, South Tower the South Ground).

Handover

FROM	TO	AT	RMK
MGN	MTN	Holdingpoints A1-A15	
MGS	MTS	Holdingpoints B1-B15	
DMND	MTN	Final 08L/26R	
DMSD	MTS	Final 08R/26L	
MTN / MTS	MTS / MTN	between the runways (or as coordinated individually)	VFR traffic

Departing Traffic

Tower receives departing traffic at the runway holding points already pre-sorted by the ground. This can be done either with the instruction "*Contact München Tower *on* (frequency)*" or "*Standby for München Tower *on* (frequency)*". The type of handover must be coordinated with Ground in advance.

The tower transfers departing traffic to EDDM_NL_APP for SIDs departing northbound and to EDDM_SL_APP for SIDs departing southbound. The frequencies 123.905 and 127.955 are to be used here. The handover should always take place as early as possible, but only if separation to other traffic is ensured.

There is an exception for parallel departures (lateral distance less than 3 NM), where the handover only takes place as soon as one of the departures turns away from the runway centerline.

Arriving Traffic

Tower receives arriving traffic on final approach from Arrival, transfer of communication should not be made before passing the respective Final Approach Fix/Point.

Arriving traffic is instructed to contact Ground on their own initiative after leaving the runway. As this rarely works on Vatsim, it is usually necessary for inbounds to receive a handoff to ground from the tower as soon as they have left the runway correctly (behind the holding point line).

Arriving traffic which is vacating via the High Speed Turnoff directly connected to the Entry used for inbounds (e.g. A9 during RWY26R), should be coordinated between Tower and Ground so that traffic may remain on Tower frequency and receives taxi clearance by Tower.

VFR Traffic

In München, there are two VFR routes for entering and leaving the control zone, the HOTEL (south) and FOXTROTT (north) routes. There is also a published holding procedure to the north and south of the aerodrome. If required, entry and exit via the Isar (south/east) or the A92 highway (east/west) is recommended to be used, as well.

Depending on the approach route, incoming VFR traffic shall call either the North or South Tower. Traffic calling on the "wrong" frequency shall be identified (e.g. by setting an appropriate squawk), receive RWY in use and QNH before giving handover to the "correct" frequency or giving further clearance after coordination.

VFR crossings should be handed over to the other Tower at the AoR border. After coordination, one Tower can also keep the crossing VFR traffic on his frequency. To transfer VFR traffic between the runways to the other Tower or to delay it until there is a gap, it is advisable to circle around the tower.

The aerodrome circuit of Oberschleissheim (EDNX) leads through the München control zone. Traffic in the aerodrome circuit shall be in radio contact with Schleissheim Radio and does not have to report to the tower or monitor its frequency. Furthermore, the München control zone must be VMC.

SSR Codes

The following non-discrete transponder (group) codes can be issued by München Tower for VFR traffic. If required, a discrete transponder code can be assigned:

Mode A-Code	Verwendung	Darstellung
6305	VFR traffic within CTR EDDM	T
7000	Groupcode VFR	V
7001	VFR outbounds	VOUT
7002	VFR inbounds	VIN
7003-7026	if required (discrete codes)	TWR

Helicopter Traffic

Helicopters are to be treated as normal VFR traffic. Three helipads are located to the west of Apron 6 and two further helipads are located on Apron 12 to the north of D6 if required. Larger rotorcraft can also be parked on Apron 6 next to the helipads. Direct landing on the helipads is not permitted. Helicopters stationed at the airport however, such as those of the Bavarian State Police (ICAO CODE: EDW), can take off and land on the helipad in both directions. All other helicopters take off and land on the runways.

Operating Direction and use of the Runways

Choice of operating direction

- Tower is responsible for determining the operating direction
- Operating direction 26 is preferred and should be used in case of doubt

Use of Runways

The two runways 08/26 in Munich can be used independently of each other. Nevertheless, in case of various conditions such as traffic volume, weather, etc., sometimes only one runway can be used for take-off and landing or one runway for take-off and the other for landing (see below).

If departures always use the preferred runway (and SID), take-off clearances can be issued on both runways simultaneously and independently of each other. Particular attention should be paid to departures of cargo aircraft from the southern runway flying northwards (INPUD, GIVMI, etc.).

These are no longer independent of departures on the northern runway, meaning that no departures may take place there at this time until separation is ensured.

Approaches are also independent of each other and ILS approaches can even take place in parallel. If the controller [during a parallel approach using the ILS] detects course deviations in one of the approaching aircraft that reduce the lateral separation, not only the deviating aircraft is requested to perform an avoidance manoeuvre, but also the aircraft on the parallel approach, even if it is on the correct final approach.

Examples for Runway Configurations

- **Independent OPS:** Both runways can be used for take-offs and landings. ILS approaches and departures on **preferred** SIDs are independent of each other.
- **Single Use of Runway OPS:** One runway is only used for take-offs, the other only for landings. The preferred runway is 08L/26L for take-offs and 08R/26R for landings. This runway configuration is recommended for Low Visibility Procedures (LVP). Take-offs and landings are also independent here, as the published G/A procedures are separate from all departures.
- **Single Runway OPS:** In winter conditions and when the runway(s) must be treated and therefore being closed accordingly, this runway configuration is used, in which only one runway is used for take-offs and landings; the south runway (08R/26L) is preferred.

Change of Operating Direction

- TWR decides on a change of operating direction in coordination with Arrival and arranges a specific time for this
- ALL other stations are informed of the change of direction. The traffic on the ground and in the air will be resequenced and recleared accordingly
- Tower reports the last departure of the old operating direction for each runway to all Approach controllers and Director
- The Arrival controllers report the last planned approach to Tower in the old operating direction for each runway
- Director informs the responsible Tower about the first arrival in the new operating direction during the base turn of the flight
- No intersection departures are permitted during the changeover until the last aircraft has left the runway

Arrivals

Separation on Final

- Generally, the responsibility for separation of flights subject to separation in CTR München (Airspace D) lies with Tower.

- The responsibility for separation of IFR-Arrivals on Final (not Visual Approach) lies with Director.
After Transfer of Communication, München Tower shall monitor separation and (if necessary) shall take appropriate measures to maintain separation.
- Reduced separation on final may be applied, if all requirements are fulfilled: In this case the separation on Final may be reduced to 2.5 NM, as long as both involved aircraft are in contact with Tower.
- Assignment of speeds on Final by Tower are permitted without coordination. However, it is recommended to inform the responsible Arrival controller about speeds assigned. After speed assignment by Tower, responsibility of separation for all involved flight lies with Tower!

Independent Parallel Approaches

- Generally, Independent Parallel Approaches are in operation.
- Independent Parallel Approaches can be used when operating ILS or RNP approaches.
- The NTZ shall be displayed on the PHX radar scope.
- Whenever NTZ is penetrated, a Missed Approach shall be instructed to reassure separation.

Missed Approaches

Tower is responsible for separation of Missed Approaches to all other flights subject to separation within CTR München. In case of a missed approach, the respective "Low" controller (DMNL / DMSL) is to be informed immediately. Callsign, planned Runway and reason for the missed approach shall be communicated to Low. Low may restrict following departures as "subject to release" (rf.

Departure Release).

Missed Approaches should generally follow the published Missed Approach Procedure, as it is independent to departures of the parallel Runway. After coordination with Low, alternate instructions may be instructed to the pilot (e.g. vector on the downwind, runway track, etc.)

Departures

Separation between Departures

For departures that depart via the same SID or via the SID combination KIRDI/BIBAG and ANKER/AKINI, the previous departure must be at least 5 NM on the SID (track miles) from the end of the runway before the following departure flies over the departure end of runway.

The performance of the aircraft types must also be taken into account in order to prevent a loss of spacing due to different speeds.

Wake Turbulence Separation shall be applied at all times!

Intersection Departures

Following table shows the Intersection and TORA pilots have to expect. Deviations from this scheme always require the prior consent of the pilot.

ATYP	08L	TORA	08R	TORA	26R	TORA	26L	TORA
Heavy+	A1/A2	4000 m	B1/B2	4000 m	A14/A15	4000 m	B14/B15	4000 m
Medium Jet	A3	3800 m	B3	3800 m	A13	3800 m	B13	3800 m
Light Jet	A4	2820 m	B4	2840 m	A12	2780 m	B12	2820 m
Turboprop	A6	2200 m	B6	2220 m	A10	2260 m	B10	2200 m

Intersections A5, A8, A9 as well as B7, B8, B11 are not permitted for lining up on the runway. Intersections A7 and B9 are not to be used in general.

Conditional Line Up on Intersections

To guarantee the correct identification of Traffic during a conditional Line-Up on Intersections, which are not in a right angle to the runway, a traffic information and a confirmation that traffic is in sight is required **prior** to line up clearance.

This is not necessary for conditional line ups from the beginning of the runway (e.g. A1-A3)

Specifically, traffic shall be reported "in sight" before a conditional clearance is issued for the following intersections: A4/A6, B4/B6 or A10/A12 and B10/B12.

“ C: DLH123, traffic, A320, 2NM final runway 26R, report traffic in sight.

P: DLH123, traffic in sight.

C: DLH123, behind mentioned traffic line-up RWY 26R, behind.

As with all traffic information, a more detailed description of the traffic is not absolutely necessary, but can be helpful for the pilot.

Noise Abatement between 2200 and 0600 lcl

During nighttime, departures are not to be cleared below FL70.

Low Visibility Procedures

The ILS in München is certified for CAT IIb operations.

Low Visibility Operations are conducted in Single Use of RWY OPS, individual approaches may deviate from this.

Active LVP shall be broadcasted in the ATIS by adding &lvp to the [ATIS Maker URL](#):

“ LOW VISIBILITY PROCEDURES IN OPERATION CAT II AND III AVAILABLE

Separation during LVP

Arrivals to Arrivals

München applies the **Landing Clearance Line (LCL)** procedure of preceding aircraft of WTC **Medium (M)** and **Light (L)**, which means: If an aircraft of WTC Medium or Light has **vacated** the **runway, passed** the **LCL** and is **still in movement** the next arrival may be overflying the threshold. If the preceding arrival has not yet passed the LCL, a Go Around shall be instructed.

Aircraft of WTC **Heavy (H)** need to vacate the **CAT II/III Holding Point** before the next arrival can pass 2 NM on final. If the next arrival passes 2 NM final and the Heavy did not vacate the CAT II/III Holding Point, a Go Around shall be instructed.

Aircraft of WTC **Super (J)** need to **reach TWY N** respective **TWY S** before the next arrival may pass 2 NM on final. If the next arrival passes 2 NM final and the Super did not reach TWY N/S, a Go Around shall be instructed.

Departures to Arrivals

To ensure ILS signals are not interfered with, all departures need to be clear of the

- **critical area** before any succeeding arrival is less than **4 NM** out, and
- **sensitive area** before any succeeding arrival is less than **2 NM** out.

This separation applies irrespective of the WTC of the involved aircraft, and a missed approach is to be instructed if separation is not achieved. Both critical and sensitive areas can be shown by activating the *LVP / Critical Areas* map in the Ground Radar.

Departures

Between two departures **full Runway separation** shall be applied.

During use of **Guided Take Off** it shall furthermore be ensured that a preceeding departure has overflowed the Localizer or a preceeding arrival has vacated the CAT II/III Holding Point before the succeeding aircraft starts its take off roll.